#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-004950 Address: 333 Burma Road **Date Inspected:** 03-Dec-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Sun Wei **CWI Present:** Yes No Yes **Inspected CWI report:** N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower

### **Summary of Items Observed:**

The Quality Assurance (QA) Inspector Gregory Bertlesman arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following.

## East Shaft, Lift 1

The Quality Assurance Inspector observed eight ZPMC welders performing in process welding of the partial joint penetration welds joining the diaphragm plates to skin plates. The welding was taking in place in the confined space at diaphragms 18M, 28M, 38M, 43M, and 47.6M. ZPMC was utilizing the flux cored arc welding process to produce the welds in the horizontal position. ZPMC Quality Control was present monitoring the welding in accordance with WPS-B-T-4332-Tc-P5-F.

#### North Shaft, Skin B, Lift 1

The Quality Assurance Inspector observed ZPMC performing in process fitting and tack welding of the longitudinal stiffeners to skin plate partial and complete joint penetration welds utilizing the shielded metal arc welding process.

#### North Shaft, Skin A, Lift 1

The Quality Assurance Inspector observed ZPMC performing in process welding of the partial joint penetration weld joining the longitudinal stiffeners to skin plate on the semi automated flux cored arc welding gantry system. The skin plate has numerous jacks on the part in an effort to minimize distortion from the welding. ZPMC Quality Control was present monitoring the welding in accordance with WPS-B-T-2332-Tc-P5-F.

# WELDING INSPECTION REPORT

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## **Summary of Conversations:**

As stated in the contents of the above report.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Josh Ishibashi 1.376.647.10411, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Bertlesman, Greg	Quality Assurance Inspector
Reviewed By:	Wright,Mark	QA Reviewer